

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A memory cell in an array of memory cells, said memory cell comprising:

a silicon substrate;

a floating gate formed at least in part within said silicon substrate; and

a bit line ~~region~~ in proximity to said floating gate, wherein all parts of said bit line are completely buried ~~region is enclosed~~ within said silicon substrate and all surfaces of said bit line are completely surrounded by said silicon substrate.

2. (Canceled).

3. (Original) The memory cell of Claim 1 wherein said bit line is formed in proximity to two adjacent surfaces of said floating gate.

4. (Currently Amended) The memory cell of Claim 3 wherein said bit line ~~region~~ is located below said floating gate and along one side of said floating gate.

5. (Original) The memory cell of Claim 1 further comprising:

a dielectric layer disposed over said floating gate; and

a control gate disposed over said oxide layer.

6. (Currently Amended) The memory cell of Claim 5 wherein said floating gate and said control gate comprise polysilicon, said bit line ~~region~~ comprises arsenic, and said dielectric layer comprises oxide-nitride-oxide.

7. (Previously Presented) The memory cell of Claim 1 further comprising:
a tunnel oxide layer formed between said silicon substrate and said
floating gate.

8-14. (Canceled).

15. (Currently Amended) A flash memory array comprising:
a plurality of floating gates arrayed in rows and columns, said floating
gates formed at least in part within a silicon substrate;
a control gate coupling floating gates and functioning as a word line; and
a plurality of bit lines, each bit line of said plurality of bit lines essentially
perpendicular to said word line, wherein all parts a-length of said each bit lines
are line is completely buried within said substrate and all surfaces of said bit
lines are completely surrounded by said substrate, said each bit line having an L-
shaped in cross-section comprising having a first portion and a second portion
that is essentially at a right angle to said first portion, wherein a first portion of a
first bit line is essentially parallel to a first portion of a second bit line, wherein
said first portion of said first bit line and said first portion of said second bit line lie
in different planes, and wherein further a second portion of said first bit line and a
second portion of said second bit line lie in essentially the same plane.

16. (Previously Presented) The flash memory array of Claim 15 wherein
said each bit line is formed in proximity to two adjacent surfaces of said floating
gates.

17. (Previously Presented) The flash memory array of Claim 16 wherein said each bit line is located below and along one side of a respective floating gate.

18. (Original) The flash memory array of Claim 15 further comprising:
a dielectric layer formed between said control gate and said floating gates.

19. (Original) The flash memory array of Claim 18 wherein said oxide layer and said control gate are formed such that they separate adjacent floating gates along said word line.

20. (Previously Presented) The flash memory array of Claim 18 wherein said floating gates and said control gate comprise polysilicon, said bit lines comprise arsenic, and said dielectric layer comprises oxide-nitride-oxide.

21. (Original) The flash memory array of Claim 15 further comprising:
a tunnel oxide layer formed between said substrate and said floating gates.

22. (Canceled).

23. (New) The flash memory array of Claim 15 wherein said first bit line is located at a distance from a first floating gate and wherein said second bit line is located at essentially the same said distance from a second floating gate, wherein said first and second bit lines have essentially the same orientation relative to said first and second floating gates, respectively; wherein a distance

traveled by current flowing from said first bit line to said second bit line is greater than the distance between said first and second floating gates.

24. (New) The flash memory array of Claim 15 wherein the length of a channel separating an end of said first bit line from an end of said second bit line that is nearest said end of said first bit line is greater than the distance between a first floating gate associated with said first bit line and a second floating gate associated with said second bit line.